Environmental Defense Comments on Phenolic Benzotriazoles

(Submitted via Internet 3/29/02)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Phenolic Benzotriazoles.

The Phenolic Benzotriazole Association proposes a category for four phenolic benzotriazoles (PBTZ). The test plan is clear, concise and an excellent and objective description of the available data. The rationale and evidence for the proposed category is convincing.

The sponsor proposes to use existing data and new studies on two of the members and to extrapolate these data to the other two members. The two prototypical members selected are CAS 2440-22-4 and CAS 70321-86-7. This selection is sound and is supported by evidence from physiochemical analyses, structural determinants of biological response, and existing ecological and health effects data. CAS 70321-86-7 is the most structurally dissimilar among the proposed members because of the R2 moiety (phenylethyl phenol). This could result in distinct biological and toxicological responses so we agree with the proposal to conduct a reproductive study on this substance along with CAS 2440-22-4. Reproductive and developmental effects should be reasonably predicted for the other two members.

The repeat dose study for CAS 3147-75-9 is incomplete, as pointed out by the sponsor, but we agree that no new repeat dose studies are needed because reliable repeat dose data are available for the other three members of the category. As expected liver toxicity appears to be the most sensitive endpoint for the PBTZs.

Existing genetic toxicity data are adequate to conclude that the four members of the category possess very weak or no genetic toxicity.

The PBTZs are used in a variety of polymers as potent UV-light absorbers for the purpose of conveying environmental stability. No information on environmental release or human exposure either in the workplace or through consumer uses was presented in the test plan. Although this is not required under the HPV program, related activities such as VCCEEP and the Alliance for Chemical Awareness exposure initiative are working towards making exposure information publicly available for many HPV substances. We recommend that any available environmental release or human exposure data be made available for this category of chemicals.

Thank you for this opportunity to comment.

George Lucier, Ph.D.
Consulting Toxicologist, Environmental Defense

Karen Florini
Senior Attorney, Environmental Defense